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NOTES AND ILLUSTRATIONS OF SOME HYDROPSYCHE AND HYDROMANICUS TYPES (HYDROPSYCHIDAE)

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Introduction

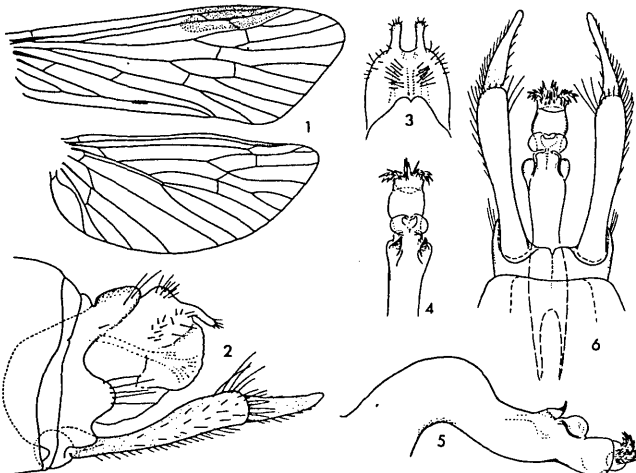
The identification of Hydropsychid material from Sunda islands presented some difficulties due to the complex nature of the region and numerous species. The previously published illustrations, prepared from dry mounted specimens were found too sketchy with insufficient details. The search for type material described by Ulmer originally deposited in Stettin Museum was undertaken. The specimens were located in the Zoological Institute of the Polish Academy of Sciences, Warszawa. Other types were located in Ulmer's collection, now in the Zoological Museum, Hamburg University. Type specimens of six *Hydropsyche* species - *annulata*, *celebensis*, *hamifera*, *irroratella*, *javanica* and *saranganica* described by Ulmer, as well as the male and female types of *Hydromanicus flavoguttatus* Albarda from Leiden Museum have been examined, the abdomens cleared and new illustrations prepared. The dissected specimens are identified by the author's notebook number with prefix PT- on a yellow label.

Acknowledgements: I wish to express my sincere thanks to Dr.S.A.Slipinski, Institute of Zoology, Polish Academy of Sciences, Warszawa, to Dr.H.Strümpel of Zoological Institute and Museum, University Hamburg, and to Dr.J.van Tol, Department of Entomology, National Museum of Natural History, Leiden, for providing access to the type specimens.

Hydropsyche annulata (Ulmer), Figs 1-6*Hydromanicus annulatus* Ulmer, 1905a:93, figs. 8-10*Hydropsyche annulata*, Ulmer, 1910:56; 1930:438, 486; 1951:231, figs.305-311.

Type material: "1♂, 1♀, Buitenzorg, Java, K.Kraepelin leg. 24.II bis 12.III 1904, Hamburg Museum" (destroyed); NEOTYPE: ♂ Buitenzorg (=Bogor), Jan.1929; in alcohol (Zoological Museum, Hamburg University).

Ulmer (1910) referred to additional 8 specimens of both sexes, some captured in copula, from several localities. On the basis of this study he transferred *annulata* to the genus *Hydropsyche*. Further material was referred to this species by Ulmer in 1930. Then, in 1951, Ulmer gave a detailed description of *annulata* and recorded the loss of the type specimens in World War II when the Museum of Hamburg was burned. He refers to a specimen from the original locality as a replacement for the lost type "...als Type betrachte ich jetzt 1♂ von Buitenzorg, 1.1929 (Spiritus)". The specimens from Buitenzorg (= Bogor) collected in January 1929 at light, consisting of 4♂, 2♀ were located in Ulmer's collection, University of Hamburg. There were 2♂, 2♀ complete as well as two specimens without abdomens and one loose abdomen which could be matched with one of the incomplete specimens, thus leaving one incomplete specimen. One of the complete male specimens was selected and designated as Neotype, the abdomen cleared (Genitalic prep. PT-1690) and illustrated. The wing venation is drawn from the second male specimen.

*Hydropsyche celebensis* Ulmer: Figs. 7-10.*Hydropsyche celebensis* Ulmer, 1951:240, figs.321-323.

Type material: Type ♂, Celebes (= Sulawesi), without specific locality or date (Zoological Museum, Hamburg University).

Length of forewing: 8mm. This specimen originally was regarded as one of the *Hydropsyche hamifera* material (Ulmer, 1905b:90) but later recognised as a distinct species (Ulmer, 1951).

The separation of the two closely related species is based on differences in shape of tergite X, which in *celebensis* is more depressed, apico-lateral extensions of tergite X more curved than in *hamifera*; also the apico-lateral lobes of phallus tapers to a narrower, nearly pointed apex. The type ♂ (genitalic prep. PT-1688) is figured.

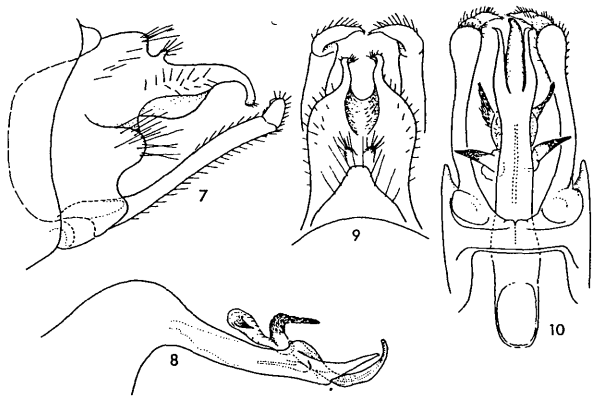


Fig. 7-10: *Hydropsyche celebensis* Ulmer, Type ♂. 7-male genitalia lateral; 8-phallus lateral; 9-male genitalia dorsal; 10-ventral.

Hydropsyche hamifera Ulmer: Figs. 11-13.*Hydropsyche hamifera* Ulmer 1905b:88, pl.4, figs. 115-118; 1951:242, figs. 324-328.

Type material: Type ♂ labelled "Celebes/TYPE ♂ (red label)/St.Z.1905 p.90 N71/*Hydropsyche hamifera* Ulmer Typen/Mus.Zool.Polonicum Warszawa 12/45", to this now added "Genitalic prep. PT-1686 A.Neboiss, 1987". Approx.2/3 of the right forewing missing. Length of left forewing 10,6mm. - 1♀ labelled "Celebes/TYPE ♀ (red label)/St.Z.1905 p.90 N71". - 1 specimen (sex?) "Celebes/COTYPUS (yellow label)/St.Z.1905 p.90 N71"; hindwings and abdomen missing. This may be another species.

The type ♂ is here illustrated; it is distinguished by the shape of tergum X, and by the broader apico-lateral lobes of the phallus as compared with *H.celebensis*.

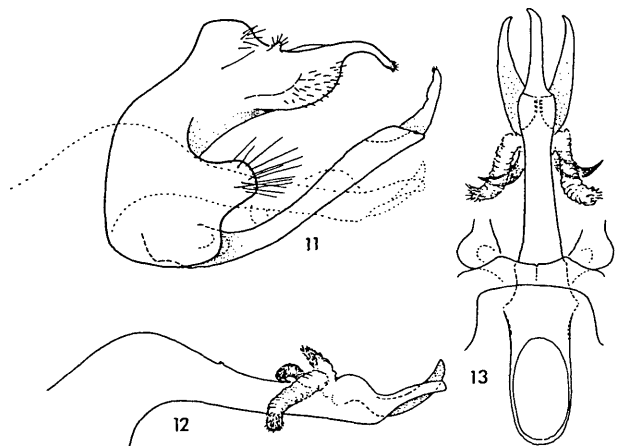


Fig. 11-13: *Hydropsyche hamifera* Ulmer, Type ♂. 11-male genitalia lateral; 12-phallus lateral; 13-ventral.

Fig. 1-6: *Hydropsyche annulata* (Ulmer), Neotype ♂. 1-wing venation; 2-male genitalia lateral; 3-tergite X dorsal; 4-tip of phallus dorsal; 5-phallus lateral; 6-male genitalia ventral.

Hydropsyche irroratella Ulmer: Figs. 14-17.

Hydropsyche irroratella Ulmer 1951:235, figs. 315-317.

Type material: Type ♂, Java (without specific locality), originally deposited in Stettin Museum, now in the Zoological Museum Warszawa. A single specimen ♂ labelled "Java/TYPE/St.Z. 1905 p.91 N75/ *Hydromanicus irroratus* Brauer Ulmers type! (handwritten label, author unknown)/ *Hydropsyche irroratella* Ulmer 1940 Type ♂ (in Ulmer's handwriting)". Now added "Genitalic prep. PT-1682 A.Neboiss, 1987".

Left side forewing glued on id.label.. The description *Hydromanicus irroratus* Brauer, given by Ulmer (1905a:96, figs. 14-16) is based on this specimen and therefore should be disregarded. Length of forewing 9mm (Ulmer 1951).

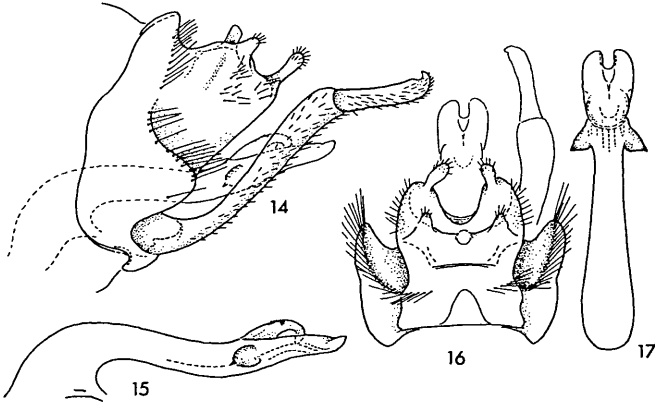


Fig.14-17: *Hydropsyche irroratella* Ulmer, Type ♂. 14-male genitalia lateral; 15-phallus lateral; 16-male genitalia dorsal; 17-phallus dorsal.

Hydropsyche javanica Ulmer: Figs.18,19.

Hydropsyche javanica Ulmer 1905b:90, pl.4, figs. 119-121; 1930:438, figs.89,90; 1951:245, figs.330-333.

Type material: Type ♂ (originally in Stettin Museum), Java, without specific locality, now in the Zoological Museum Warszawa. - A single specimen labelled "Java/TYPE/St.Z. 1905 p.91 N73/*Hydropsyche javanica* Ulmer Type!/Mus.Zool.Polonica Warszawa 12/45", to that now added "Genitalic prep. PT-1684, A.Neboiss 1987". Left side forewing missing.

Ulmer 1930 draw attention that this species may be identified by the distinct anteriorly directed pair of protuberances on dorsal side of tergum X. The wing venation (Fig.19) resembles that of *Hydromanicus irroratus* Brauer (1865) as published on the original plate (Fig.20). In particular the forewing discoidal cell with broadly sessile fork 2 and the separately terminating Cu2 and A at arculus. There is a fold in wing membrane between the base of forks 4 and 5 which gives a false impression of a cross vein, which actually is located at about half way along the median cell basally, and being indistinct, may be overlooked. Generally the position of veins in hindwing also show similarities. It is therefore not ruled out the possibility that *Hydropsyche javanica* Ulmer may prove to be the same as *Hydromanicus irroratus* Brauer.

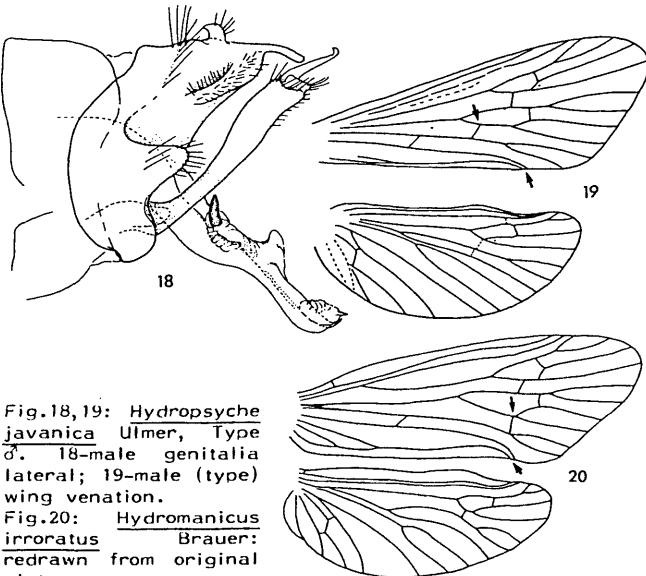


Fig.18,19: *Hydropsyche javanica* Ulmer, Type ♂. 18-male genitalia lateral; 19-male (type) wing venation.
Fig.20: *Hydromanicus irroratus* Brauer: redrawn from original plate.

Hydropsyche saranganica Ulmer: Fig.21.

Hydropsyche saranganica Ulmer 1951:247, figs.334-336.

Type material: Type ♂, Sarangan, Central Java, Dec.1928 at light, Thienemann; in collection Ulmer, now in the Zoological Museum, Hamburg University. - Material consists of 1♂, 2♀ in alcohol, which are now placed in individual vials; type ♂ labelled "Genitalic prep. PT-1689, A.Neboiss, 1987", illustrated.

The two females appear to represent two different species, their identity has not been established. The species is distinguished by large, distally produced lateral lobe of segment IX; distinctive apices of inferior appendages and phallus.

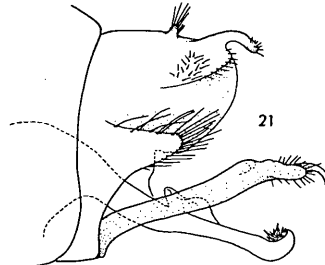


Fig.21: *Hydropsyche saranganica* Ulmer, Type ♂, genitalia lateral.

Hydromanicus flavoguttatus Albarda: Figs. 22-30.

Hydromanicus flavoguttatus Albarda 1881:19, pl.VI, figs.1a-h.

Hydromanicus flavoguttatus: Ulmer 1930:440, figs.94,95; 1951: 284, figs.390-394; 405-415.

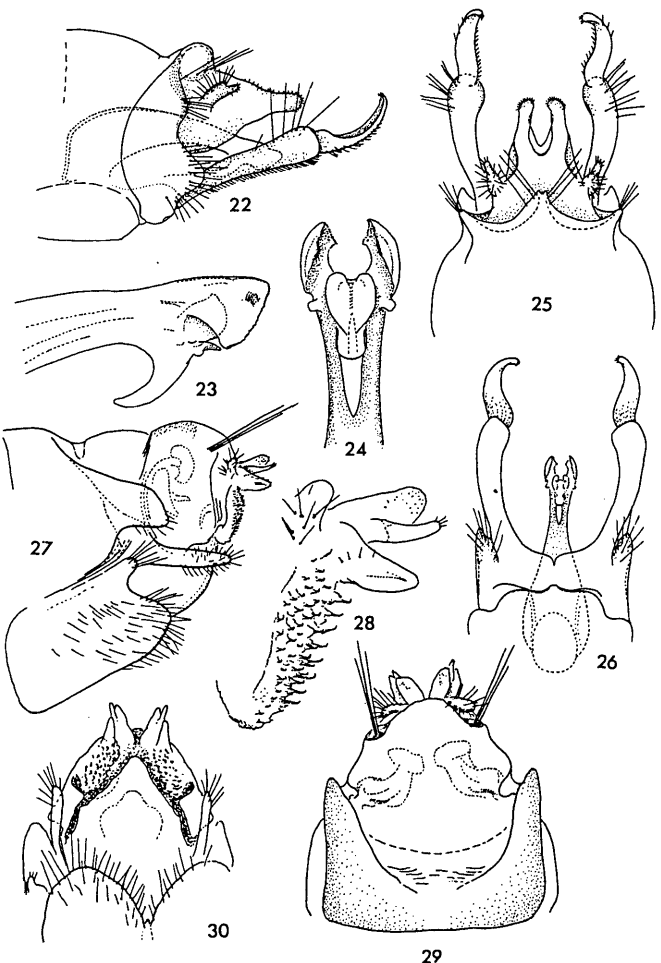


Fig.22-30: *Hydromanicus flavoguttatus* Albarda, Lectotype ♂. 22-male genitalia lateral; 23-tip of phallus lateral; 24-ventral; 25-male genitalia dorsal; 26-ventral; 27-female (paralectotype) genitalia lateral; 28-tip of genitalia enlarged; 29-genitalia dorsal; 30-ventral.

Type material: Lectotype ♂ labelled "Palemb.B...?; 586/78/Hydromanicus flavoguttatus Albarda ♂ (unknown handwriting)/Sum. Exp.7/Type/Cat. N°8/Museum Leiden, Hydromanicus flavoguttatus Alb./Genitalia prep. PT-1623 ♂, A.Neboiss, 1986". - Paralectotype ♀, same locality and date, Cat.N°9, Genitalia prep. PT-1665 ♀, A.Neboiss, 1986". - Paralectotype ♂ "Ar.Bk.5.77/Sumatra/Cat.N°10" (Ar.Bk.=Ajer Boesoeck). - All three specimens in Leiden Museum. Length of forewing 10,5-11mm.

Described from Palembang and Ajer Boesoeck, Sumatra. The males are distinguished by the shape of inferior appendages and the ventro-apical hook-like process of the phallus. In female tergite VIII with broad lateral lobe; tergite IX with slender elongate lateral projection; segment X distally covered with small hooked projections.

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TRICH-L Internet Discussion List

Trichoptera Colleagues:

In response to your enthusiastic encouragement at the Symposium last summer in Minnesota, I am pleased to announce the establishment of an electronic discussion group for Trichoptera: Trich-L.

The purpose of the discussion group list is to allow rapid communication among all Trichoptera colleagues globally who have internet access. Any and all topics that are likely to be of general interest to Trichoptera scientists and that can be expressed in relatively short messages are encouraged. Please note that this service, while we intend it to be permanent, is presently experimental for us. (I thank, especially, Mr. Ken Allen, computer technician in my department, for doing most of the work to help establish our list.)

This is not expected to displace BRAUERIA for communicating among trichopterologists. BRAUERIA serves the important purpose of providing news of a more lasting nature.

Communication among individual Trichoptera scientists will certainly continue through the various means already in operation, including E-mail.

To subscribe to the discussion group list, send the following message IN THE BODY ONLY:

subscribe Trich-L your name (for example: subscribe Trich-L john morse)

to the following address:

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If you are using Quickmail (CE Software), you should use the "Plain Memo" form ONLY for sending to cuentsubscribe any commands such as the "subscribe" command above. (This constraint does not apply to any messages you may want to send to the discussion group.)

If everything works correctly, you will receive confirmation that you are subscribed to Trich-L. You will also receive further instructions about communicating through this list. I encourage you to save the message you receive and also to ask for the HELP message (instructions provided in the initial response) in order to keep on file a complete set of instructions.

If you have questions about the operation of Trich-L, please ask me directly.

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(see "Entomology Information" for searchable databases regarding the CUAC and the Trichoptera World Checklist)

OBITUARIES

We learn with sadness of the death of two of our old friends, who were among the first to join as participants in the First International Symposium on Trichoptera in 1974.

Dr. Janett Florin

of Kronbühl, Switzerland, died on 27 January 1996 at the age of 78 after a long illness. He was a quiet and friendly man, and worked on the faunistics of Trichoptera and Lepidoptera in Switzerland. He published several papers on the caddisflies of Central and Eastern Switzerland and Liechtenstein between 1980 and 1992.



Janett Florin in Lunz, 1974 (centre; with M.I.Crichton and O.S.Flint)

Dr. Sándor Ujhélyi

of Budapest, Hungary, died on 19 May 1996 at the age of 95. He was one of the pioneers in the study of Trichoptera and some smaller insect orders in Hungary, and published several papers on caddisflies between 1971 and 1986. His collection is now in the Hungarian Natural History Museum.

We shall remember these friends.



Sándor Ujhélyi in Lunz, 1974 (with M.Marinković)

